Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



STT055-03 Room:302 Time:May 27 09:00-09:15

The improvement of auto-determined hypocenter location, focal mechanism and CMT-solution

Hiroshi UENO^{1*}, Shimpei Adachi¹, Yuji Usui¹, Masashi Kiyomoto¹, Koji Sakoda¹, Koji Tamaribuchi¹, Takahiko Yamauchi¹, Yasumasa Shiozu¹, Takashi Yokota¹

¹SVD/JMA

We issue hypocenter parameter of felt earthquakes immediately after earthquake occurred. And after two days, we re-issue more precise hypocenter parameter of all earthquakes occurred in and around Japan.

On the other hand, after four business days, the parameter of the mechanism solution issue.

It is effective in the disaster prevention measures to know immediately the parameter of the hypocenter and mechanism solution

This time, we have improved the automatic determination method of the hypocenter location, focal mechanism and CMT-solution with EPOS(Earthquake and Phenomena Observation System) and REDC(Regional Earthquake information Data Center) system updating.

We plan to publish in JMA HP(in Japanese only) by following criteria in the spring of this year.

- 1. The publishing time: In about 30 minutes after the earthquake occurs
- 2. The publishing magnitude of earthquake
- 2-1. auto-hypocenter location:
- (1) All felt earthquake
- (2) JMA magnitude of earthquake which occurred inland is 1.5 and over.
- (3) JMA magnitude of earthquake which occurred in sea and deep area is 4.0 and over.
- 2-2. auto-mechanism
- (1) Focal mechanism: JMA magnitude of earthquake is 3.5 and over.
- (2) CMT-solution: Moment magnitude of earthquake which occurred in and around Japan is 5.0 and over. Moment magnitude of earthquake which occurred over the world is 6.5 and over.

Keywords: AUTO hypocenter location, AUTO focal mechanism, AUTO CMT solution, EPOS, REDC